

amd fnl 1 dnf

11

2/28/2006 11:26 AM

REMARKS

5 This amendment is submitted in response to the office action of
5 December 2005 which considered all of pending claims 1 - 18; rejected
independent claims 1, 2 and 17 and dependent claims 3-4 under
35 U.S.C. 102 (e). This office action also rejected dependent claims 5-16 and 18
under 35 U.S.C. 103a. The present amendment revises claims 1-3, 10, 16-18, and
10 submits claims all claims (1-18) for reconsideration.

As per **Drawings 1.** on page 2 of the office action, the requested drawing
changes have been made. Enclosed is a replacement drawing.

As per **Drawings 2.** on page 2 of the office action, the specification has
been amended to correct the alleged deficiencies.

15 As per **Claim Objections. 3.** on page 3 of the office action, claim 3 has
been revised.

As per **Claim Objections. 6. 7. 8.** on page 3 of the office action, claims 1-
and 16-18 have been revised.

20 Claims 1-3 have been revised to improve the characterization of the
invention.

As Per **Double Patenting** on page 4 et seq. of the office action, the
attached terminal disclaimer is submitted herewith to overcome the rejection of
claims 1-4 on obviousness type double patenting. This rejection is traversed.
However the requested terminal disclaimer is attached hereto to expedite the
25 prosecution of the application.

Response to the 35 U.S.C. 102(e) rejections.

30 As per paragraphs 13. and 14. of the office action, the rejection of claim 1
as anticipated by Ferguson et al (US 6,798,777) (hereinafter Ferguson) is
respectfully traversed. Ferguson discloses a system, which employs linked list
processing of files received on an input port of a router, processing the received
files and extending the received files to an output port of the router. Ferguson is
directed to a determination of the output port to which received files are to be

amd fnl 1 dnf

12

2/28/2006 11:26 AM

extended. By contrast, the applicant's invention does not disclose or claim how received files are extended to an output port of a router. Applicant's invention comprises a memory management system that is separate from a router or file server (hereinafter file server). Applicant's memory management system is adapted to stores file after they have been received by a file server and prior to the time that they are to be applied to an output port of the file server. Independent claim is 1, 2 and 17 have been amended to clarify that the memory management system of the present invention is not part of a file server but comprises separate memory facilities that are adapted to temporarily store files received by a file server.

10 The memory management system of the present invention is shown on figures 17 and 18 and is described in the specification beginning on beginning on page 23, line 24. The memory management system disclosed on figure 18 provides efficient high-speed storage for files received by input port 1817, which are extended to output port 1818 of file server 1811. The sole function of the apparatus of the present invention is to provide storage for the files received by a file server prior to the time they are extended by the file server to output port 1818. A file requiring such storage is transmitted by access flow regulator 1801 to the memory apparatus shown on the lower portion of figure 18. Access flow regulator 1801 is an interface between file server 1811 and the memories shown on the lower portion of figure 18. These memories comprise the memory storage facilities of the present invention. Access flow regulator 1801 determines, under control of processor 1814, when a file received by file server 1811 requires storage and applies it over bus 1802 to the state comptrollers 1804 and their RAM banks 1803.

Each state controller 1804 determines whether it's associated RAM bank 1803 is available for storage of a received file. RAM bank 1803 is a high-speed low capacity memory that stores the first part of a received file up to the limited storage capacity of RAM bank 1803. The excess portion of the file is received by RAM 1803 and immediately transmitted via background access multiplexer 1808 to remote rams 1806, which comprises a slow speed bulk storage. Thus, when the storage of a file is accomplished by the facilities of figure 18, the first part of the file is stored in the high-speed RAM 1803; the excess potion of the file is stored in bulk memory 1806.

Access flow regulator 1801 subsequently determines that a file stored by the memories of figure 18 is to be retrieved and extended via access flow regulator

amd fnl 1 dnf

13

2/28/2006 11:26 AM

1801 to an output port 1818 of file server 1811. The retrieval of a stored file is accomplished by reading the first part of the file from the high-speed RAM 1803, concurrently retrieving the excess from remote RAM 1806, and transmitting the retrieved excess portion to the associated high-speed RAM 1803 which forwards the entire file to access flow regulator 1801. Access flow regulator 1801 functions as an interface between file server 1811 and the memory storage facilities of the present invention and forwards the retrieved file to output port 1818.

It can be seen that the present invention relates to the details of a high-speed storage facility for files received by file server 1811 prior to the extension of the received files to output port 1818. The memory facilities of the present invention are separate from file server 1811 but are connected to it by means of access flow regulator 1801, which defines an interface. The provision of a common high-speed memory storage facility is advantageous in that it eliminates the need for each input port of file server 1811, such as port 1817, to be equipped port with memory storage facilities. The provision of a common memory storage facility as provided by the present invention provides for improved efficiency in the temporary storage of received files.

The examiner's analysis of Ferguson in the rejection of claims 1-4 and 17 cannot be understood. The examiner's rejections are believed to be moot since independent claim is 1,2 and 17 have been amended to clarify that file server 1811 and the memory facilities of the present invention of figure 18 are separate entities that are coupled to each other solely by means of the interface comprising access flow regulator 1801. It is respectfully submitted that Ferguson is not a 35 U.S.C. 102 anticipation of these claims as amended. The applicant cannot find any apparatus in Ferguson that provides for the temporary storage of a file received by a separate file server using the apparatus defined by the applicant's amended claims.

If the examiner reapplies Ferguson he is respectfully requested to comply with the all elements rule for 35 U.S.C. 102 rejections and indicate with specificity and particularity where each element recited in the rejected claims, as currently amended, is to be found in Ferguson. Thus, where does Ferguson disclose an access flow regulator 1801 defining an interface between a file server and a separate memory storage facility? Where does Ferguson disclose high-speed Ram bank memories 1803 together with associated state comptrollers 1804 of an

amd fnl 1 dnf

14

2/28/2006 11:26 AM

independent memory system? Where does Ferguson disclose background access multiplexer 1808 of an independent memory system? Where does Ferguson disclose bulk memory, such as 1806 that stores the excess portion of a file with the first part being stored in an associated RAM bank 1803 of an independent memory system?

Claim 1 is directed to the writing of a file received from the interface comprising access the flow regulator 1801 and applied to the independent memory facilities of figure 18. Independent claim 2 differs from claim 1 only in that claim 2 is directed to the reading or retrieval of a stored file and the application of the retrieved file to access flow regulator 1801 defining an interface.

The examiner's 35 U.S.C. 102 rejection does not appear to satisfy MPEP. 2131, which characterizes the requirements, an anticipatory reference must possess. MPEP 2131 states that a claim is anticipated only if each and every element set forth in the claim is found expressly or inherently in a single prior art reference. MPEP 2131 further states that the identical invention must be shown in as complete detail in the reference as is contained in the claim. The elements must be arranged in the office action as required by the claim. Rule 1.83 of 37 C.F.R. states that the drawing must show every feature recited by the claims. The reference must be understandable and enabling to a person of ordinary skill in the field of the invention. It is the claims that define the invention. And it is the claims, not applicant's specification or the results achieved, that must be anticipated by a single prior art reference. Ferguson does not meet this requirement since, insofar as it can be understood, as it does not disclose each and every element recited in applicant's claims 1-4 and 17.

The examiner's comments in support of the 35 U.S.C. 102 rejection of claim 1 do not appear to meet the requirements for anticipation. Amended claim 1 recites that access flow regulator 1801 defining an interface between file server 1811 and a separate memory system comprising the high-speed memories 1803 and a bulk member 1806 having a lower data rate than the high-speed memories 1803. The examiner's comments do not indicate where Ferguson discloses an independent memory system having the high-speed memories 1803 and low-speed bulk memory 1806. Ferguson does not disclose an access flow regulator 1801 that functions as an interface between a file server and, independent memory facilities for providing temporary storage of packets.

amd fnl 1 dnf

15

2/28/2006 11:26 AM

The last element of claim 1 requires a transfer of an excess portion of a file from high-speed memories 1803 to bulk memory 1806. The examiner's comments ignore this transfer recitation. Insofar as the examiner's comments and Ferguson can be understood, it would appear that the head and tail buffer 318 on Ferguson figure 3 receives only the head and tail buffers. The notification area 319 appears to be the bulk memory that receives the intermediate buffers from a separate source independent of Ferguson memory 318. Neither the examiner's comments nor Ferguson describe an operation in which buffer 318 receives all buffers of a file, retains only the head and tail buffers, and transfers intermediate buffers to the Ferguson bulk memory 319. **Such a transfer does not appear to be possible Insofar as Figure 3 Insofar as Ferguson can be understood.**

The office action characterizes the Ferguson output request processor 306 as being equivalent to the applicant's access flow regulator 1801 comprising an interface. This is not possible since the apparatus shown on Ferguson figure 3 is embedded in the input port. This is to be distinguished from applicant's invention in which access flow rate regulator 1801 is not part of an input port of the file server and instead, is an interface between file server 1811 and the separate memory facilities of the present invention. It is also apparent that the Ferguson output request processor 308 transmits the head and tail of a package into the head and tail buffer 318; but it cannot possibly transmit intermediate buffers to Ferguson memory 318 for subsequent transfer to the notification area 319 comprising the Ferguson bulk memory. It is quite apparent that the Ferguson bulk memory 319 located at the bottom of figure 3 does not receive intermediate buffers from the head and tail queue buffer 318 at the top of Ferguson Fig. 3 which is clearly described in Ferguson as receiving only the head and tail buffers from output request processor 306.

As per paragraph 15. of the office action, the examiner's rejection of independent claim 2 is respectfully traversed for reasons comparable to those described for independent claim 1. Amended claim 1 is directed to a method by which the applicant's apparatus executes a write operation into the memory system of figure 18. Claim 2 is directed to the method by which the apparatus of figure 18 retrieves the file written by the method of claim 1. The examiner's comments supporting the rejection of claim 2 are unpersuasive for the same reasons above characterized for claims 1. If the examiner reapplies Ferguson, he is respectfully

amd fnl 1 dnf

16

2/28/2006 11:26 AM

requested to indicate the elements of Ferguson that fulfill the last portion of claim 2 which recite the steps of: transferring the excess portion of a file from the bulk memory 1806 to the high-speed memory 1803; reading and transmitting the entire file from the high-speed memory 1803 to the access flow regulator 1801 defining an interface between the separate memory facilities and file server 1811.

It is respectfully submitted in view of the above that amended independent claims 1 and 2 are not anticipated by Ferguson. It is also submitted that amended independent apparatus claim 17 together with rejected dependent claim 18 is not anticipated by Ferguson for similar reasons. Independent apparatus claim 17 corresponds to independent claim 1+2. Independent claim 17 as amended recites a write function plus a read function. In accordance with the all elements rule applicable to anticipation rejections, the rejection of claim 17 must be supported by a detailed analysis comparing all of elements of claim with elements in Ferguson that directly correspondent to the elements of amended claim 17. This has not been done in the rejection of independent claim 17 is respectfully traversed. It is respectfully requested that, if the examiner reapplies Ferguson as a 35 U.S.C. 102 (a) reference reclaim 19, he is requested to comply with C.F.R. 1.83 as well as the requirements of MPEP 2131 and indicate with where all elements of claim 19 are recited are shown and described in Ferguson.

The above descriptions of applicant's figure 18 concerns only the broader details of the applicant's claimed invention. Due to the complexity of the present invention, it is respectfully submitted that that the examiner study the present submission beginning with page 23 for a description of figures 17 and 18 and read through the following material including that describing the method of processing read requests as shown on figure 22 and the method of processing write requests on figure 23 as well as a material shown on figure is 24 and 25. The examiner's familiarization with this material will enable him to better understand the claimed invention as well as how the claimed invention differs from Ferguson.

As per paragraph 16. of the office action, the rejection of dependent claim 3 is respectfully traversed. Claim 3 recites the step of concurrently files for a plurality of requests from said access flow regulator 1801. The undersigned submits that a plurality of Ferguson requests processors 306 of an input port is not comparable to the applicant's access flow regulator 1801 defining an interface. The examiner's interpretation is not in accordance with the all elements rule for 35 U.S.C. 102

amd fnl 1 dnf

17

2/28/2006 11:26 AM

rejections. This rule requires that a reference asserted to be anticipatory must disclose a counterpart of each claim element. It is submitted that a plurality of Ferguson's output flow processors 306, which are provided on a per port basis, do not correspond to applicant's single access flow regulator 1801 defining an interface. Claim 3 is also asserted to be allowable since it is dependent upon amended independent claim 1 which is believed to be allowable.

As per paragraph 17. of the office action, the rejection of dependent claim 4 rejection is traversed. Claim 4 is believed to be allowable because of its dependency upon amended independent claim 1. The examiner's application of Ferguson is not understood since nothing in Ferguson has elements the directly correspondent to the elements of amended claim 4. The examiner's interpretation does not comply with the all elements rule requiring correspondence between applicant's claim element and an element in Ferguson.

As per paragraph 18 of the office action, the rejection of independent claim 17 is respectfully traversed for the same reasons discussed for independent method claims 1 and 2. Independent apparatus 17 is a combination of amended claims 1 and 2 and has been similarly amended for the same reasons as were claims 1 and 2.

Response to the 35 U.S.C. 103 (a) Rejections

As per paragraph 21 of the office action, dependent claims 5, 6, 13, 16, and 18 were rejected under 35 U.S.C. 103 (a) over Ferguson in view of Brigati (US 6,279, 068). This rejection is traversed since these claims are believed to be allowable as being dependent upon an allowable one of amended independent claim (1, 2, and 19). The rejections of these dependent claims are further traversed because the rejection fails to comply with the rules and regulations characterizing 35 U.S.C. 103 obviousness rejections. These rejections are also traversed since the examiner's analysis of Ferguson does not set forth all elements of applicant's claims. The examiner presented no evidence indicating why one would be motivated to combine Brigati with Ferguson. The Examiner presented no information indicating how his proposed combination could be supported. The examiner did not indicate what element in Ferguson would require replacement or modification to incorporate Brigati. Ferguson and Brigati are complex references

amd fnl 1 dnf

18

2/28/2006 11:26 AM

and it is respectfully submitted that fairness to the applicant requires that the examiner provides sufficient information regarding is proposed combination to enable the applicant to understand the merits of the rejection and to provide a meaningful response. This would require information indicating what element in
5 Ferguson's needs to be altered modified or replaced by an unidentified element in Brigati. The unsupported assertion that do two patents could be combined to reject the applicant's claims conveys no useful information and is unfair to the applicant. The undersigned cannot meaningfully respond to such rejections until the examiner provide information indicating what element of each patent is to be used in the
10 combination and how each such element is to be modified.

As per paragraph 22 of the office action, dependent claims 9 and 12 were rejected under 35 U.S.C. 103 (a) over Ferguson in further view of Milway US 6,470,428. This rejection is traversed and the claims are believed to be allowable as being depended upon an allowable one of amended independent
15 claim (1, 2, and 19). The rejections of these claims are further traversed on the grounds that the examiner's rejection fails to comply with the rules and regulations applicable to 35 U.S.C. 103 obviousness rejections. The examiner's rejections are not supportable since the no evidence was produced proving motivation to combine the references. This rejection is further traversed since the examiner's analysis of
20 Ferguson indicates that it does not contain elements corresponding to all elements of the rejected claims. The examiner presented no evidence indicating why one would be motivated to combine Ferguson with Milway. The Examiner also presented no evidence indicating how his proposed combination could be achieved. He presented no description of what element in Ferguson would require
25 replacement or modification to incorporate Milway. Ferguson and Milway are complex references and it is respectfully submitted that fairness to the applicant requires that the examiner provides sufficient information regarding is proposed combination to enable the applicant to understand the merits of the rejection and to provide a meaningful response. This would require information indicating what
30 element in Ferguson's needs to be altered modified or replaced by an unidentified element in Milway. The unsupported assertion that the patents could be combined to reject the applicant's claims conveys no useful information and is unfair to the applicant.

As per paragraph 23 of the office action, dependent claim 11 was rejected

amd fnl 1 dnf

19

2/28/2006 11:26 AM

under 35 U.S.C. 103 (a) over Ferguson in view of Brigati and in further view of Klikki US 6,868,061 (hereinafter Klikki). This rejection is traversed since the claims are believed to be allowable as being depended upon an allowable one of independent claim (1, 2, and 19). The rejections of these claims are further
5 traversed since the rejection fails to comply with the rules and regulations applicable to 35 U.S.C. 103 obviousness rejections based upon the combining references. The rejections are not legally supportable since it contains no evidence of motivation to combine the references. This rejection is further traversed since the examiner's analysis of Ferguson indicates that it does not consider elements
10 corresponding to all elements of the rejected claims. The examiner presented no evidence indicating why one would be motivated to combine Brigati and Klikki with Ferguson. The examiner also presented no evidence indicating how his proposed combination could be achieved. He presented no description of what element in Ferguson would require replacement or modification to incorporate Brigati and
15 Klikki as he proposes.

Ferguson, Brigati and Klikki are complex references and it is respectfully submitted that fairness to the applicant requires that the examiner provides sufficient information regarding is proposed combination to enable the applicant to understand the merits of the rejection and to provide a meaningful response. This
20 would require information indicating what element in Ferguson's needs to be altered modified or replaced by an unidentified element in Brigati as well as Klikki. The unsupported assertion that the patents could be combined to reject the applicant's claims conveys no useful information and is unfair to the applicant.

As per paragraph 24 of the office action, dependent claims 7,8,14, and 15
25 were rejected under 35 U.S.C. 103 (a) over Ferguson and Brigati in further view of Lee et al US PG Pub 2004/0205305 (hereinafter Lee). This rejection is traversed because these claims are believed to be allowable as being depended upon an allowable one of amended independent claims (1, 2, and 19). The rejections of these the pendant claims are further traversed on the grounds that the examiner's
30 rejection fails to comply with the rules and regulations applicable to 35 U.S.C. 103 obviousness rejections. The examiner's rejections are not legally supportable since the examiner produced no evidence of motivation to combine the references. This rejection is further traversed since the examiner's analysis of Ferguson indicates that it does not contain elements corresponding to the elements of the rejected

amd fnl 1 dnf

20

2/28/2006 11:26 AM

claims. The examiner presented no evidence indicating why one would be motivated to combine Brigati with Ferguson and Lee. The examiner also present in no details indicating how his proposed combination could be achieved. He presented no description of what element in Ferguson would require replacement or modification to incorporate Brigati and Lee as he proposes. Ferguson Brigati and Lee are complex references and it is respectfully submitted that fairness to the applicant requires that the examiner provides sufficient information regarding proposed combination to enable the applicant to understand the merits of the rejection and to provide a meaningful response. This would require information indicating what element in Ferguson's needs to be altered modified or replaced by an unidentified element in Brigati as well as Lee. The unsupported assertion that the patents could be combined to reject the applicant's claims conveys no useful information and is unfair to the applicant.

All of the above-discussed 35 U.S.C. 103 (a) rejections were made with no regard for the requirement of the presentation of evidence supporting a **motivation to combine**. It appears that the examiner used the PTO search engine to find a collection of patents containing elements corresponding to the claims being examined. Having found a suitable collection of patents, the examiner asserted that his collection of patents could be combined, and applied them against the rejected claims with no consideration of the necessity of evidence supporting a **motivation to combine**. If the examiner applies his combination of patents in a subsequent office action, the examiner is respectfully requested to set forth with specificity and particular how the references could be combined. This would include a description of what element in Ferguson is to be modified or replaced by what element of other combined references

It goes without saying that the ability to collect patents whose combined elements correspond to the elements of a claim under examination does not by without more provide the basis of a supportable 35 U.S.C. 103 (a) obviousness type rejection proving prima facie obviousness. Such a rejection additionally requires evidence of motivation. It goes without saying that **anything can be combined with anything**. A collection of patents does not by itself prove prima facie obviousness. The missing ingredient that must be presented to achieve prima facie obviousness is **evidence supporting a motivation to combine**. This was not done in the present office action. It is submitted that the 35 U.S.C. 103 (a)

amd fnl 1 dnf

21

2/28/2006 11:26 AM

rejections are improper.

All of the 35 U.S.C. 103 (a) rejections are respectively traversed as failing to meet the requirements of a 35 U.S.C. 103 obviousness rejection. The examiner's proposed combinations amount to nothing more than unsupported
5 assertions the applied patents could be combined, followed by the examiner's personal conclusion that it would be obvious to combine the patents. The examiner's assertion amounts to the application of impermissible 20/20 hindsight based upon knowledge gained by a reading of the applicant's application and the use of this knowledge against the applicant to form the 35 U.S.C. 103(a) rejections.

10 An obviousness rejection requires supporting evidence. An obvious rejection requires **evidence supporting a motivation to combine** the applied references. An assertion of obviousness without the evidence of motivation renders the 35 U.S.C. 103 rejections improper.

The examiner is respectfully referred to section 2142 of the MPEP, which
15 addresses the legal concept of prima facie obviousness. It describes what is required to establish a prima facie case of obviousness. Section 2143.01 discusses the required evidence of motivation to modify references. **This section further states that the prior art must suggest the desirability of combining the references to make the claimed invention obvious.** It states that without
20 evidence of motivation to combine, a rejection based upon obviousness is improper. It further states that obviousness can only be established by combining references where there is some teaching or suggestion or motivation is found either explicitly or implicitly in the references themselves. In the present office action, the examiner failed to comply with the MPEP, which states that **the fact that**
25 **references can be combined is not sufficient to establish prima facie obviousness.** It further states that the fact that the claimed invention is within the capabilities of one skilled in the art is **not sufficient by itself without motivation to establish a prima facie case of obviousness.** The examiner is referred to the Above-discussed sections of the MPEP together with the case law cited therein for
30 further elaboration on the subject of what is required to establish a prima facie obviousness.

It may be noted that one could argue, "Anything can be combined with anything". This statement proves nothing since it is obviously true. The statement is also true, but is inapposite, when determining patentability. For patentability the test

amd fnl 1 dnf

22

2/28/2006 11:26 AM

is not **what could be combined**; the test is the availability of evidence proving a **motivation to combine**.

By reading section 2142 of the MPEP the examiner will be instructed that an obviousness rejection requires more than a brief session on the PTO search engine to identify a collection of patents whose summation of elements matches all elements of the claims under study. The examiner will be instructed that evidence of motivation to combine must be found. The examiner will also be instructed that the mere fact that two patents could be combined is not sufficient. Also, the fact that it **might be desirable to combine** the patents is not sufficient. The elusive ingredient required to support prima- facie obviousness is **evidence of a motivation to combine** the references. Ideally, this evidence of motivation should be found in the references themselves.

In fairness to the applicant, an obviousness rejection proposing the combination of complex references should present sufficient information so that the prosecution record is clear as to what the examiner is suggesting. Design level details are not required. However, more is required than the mere assertion that the references could be combined. Fairness requires that the examiner provide some information as to how the references are to be modified to achieve the proposed combination. Thus, if two complex patents were to be combined, fairness would suggest that the examiner indicate what elements of the first patent must be modified or eliminated to achieve the incorporation of an identified element of the second patent into the first patent.

The present 35 U.S.C. 103 (a) rejections are respectfully submitted to be improper since each fails to prove evidence of motivation to combine. If the examiner reapplies combinations of references in the next office action, he is respectfully requested to comply with the requirements of the MPEP and provide evidence of motivation to combine. He is respectfully requested to indicate with specificity and particularity where the evidence of motivation to combine is found in the cited references.

The undersigned wishes to thank the examiner for the courtesies extended during a recent phone conversation during the week of 14 Feb. 2006.

It is respectfully submitted that the claims remaining in application are allowable over the prior art and such action is respectfully requested.

amd fnl 1 dnf

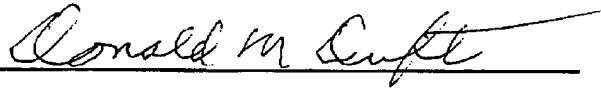
23

2/28/2006 11:26 AM

The examiner is respectfully requested to call if the prosecution of the application can be expedited by so doing.

5 Respectfully submitted,

10 Date: 28 Feb 2006



SIGNATURE OF PRACTITIONER

Donald. M. Duft, Reg. No. 17,484

Duft Borsen & Fishman LLP

Telephone: (303) 786-7687

Facsimile: (303) 786-7691

15 **Correspondence address:**

Customer Number: 50525